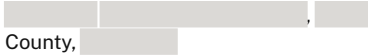
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		Revision / Date	A · September 29, 2026		
		Issue purpose	Issued for Review		
INSTRUMENTATION AND CONTROLS · ELECTRIC MOTOR-OPERATED VALVE ACTUATORS					
Rev.	Date	Revision description	Prepared	Reviewed	Approved
A	2026-09-29	Issued for Review			

NOTES

1. This datasheet covers the electric motor operators for the meter run double block and bleed isolation valves and the series crossover valve.
2. Controlling documents:  GEN-DB-001, Basis of Design;  INS-LST-001, Instrument Index;  INS-LST-002, I/O List;  INS-LST-003, Alarm and Trip Setpoints;  INS-RPT-001, Control Philosophy and Functional Narrative (run switching and series verification);  INS-DWG-002, Typical Loop Diagrams.
3. Values marked typical are budgetary. The vendor shall confirm them with its proposal and final data (HOLD H-15).
4. Units are US customary. Pressures are gauge unless stated as absolute. Operating cases C1 to C7 are defined in  GEN-DB-001, Section 6; normal conditions are case C2, maximum operating conditions the envelope of C1 to C7, and design conditions those of  GEN-DB-001, Section 7.
5. The motor-operated valves have no fail-safe function; they fail as-is, as the basis requires, and the run switching sequence holds on a travel timeout.
6. MOV-115 is normally closed. Its seal is checked through the body cavity bleed and PI-115A before and after every series verification, because a leak past it would bias custody measurement.

GENERAL

Table 1-1: General Data

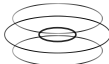
Item	Value	Item	Value
Project	 County, 	Service	120 MMSCFD gas receipt into the receiving pipeline operator's 
Form content	ISA-20; tag numbers to ISA-5.1	Electrical codes	NFPA 70 (2023) Articles 500 and 501; API RP 500
Safety instrumented tags	IEC 61511 and IEC 61508	Sour service	Not required; sweet gas, H ₂ S 4 ppmv maximum (NACE MR0175 not applied)

SITE CONDITIONS

Table 1-2: Site and Environmental Conditions

Item	Value	Item	Value
Ambient design temperature	-5 °F to 110 °F	Electronics rating	-40 °F to 158 °F (-40 °C to 70 °C)
Solar radiation	1,000 W/m ² ; sunshades where exposed	Elevation and atmosphere	1,150 ft MSL; 14.10 psia
Wind and ice	108 mph (ASCE 7-22, Exposure C); 0.5 in radial ice (HOLD H-06)	Area classification	Class I, Division 2, Group D in process areas; Division 1 within 5 ft of vents and relief outlets (Volume 6 area classification drawing)
Temperature class	T3 minimum (natural gas autoignition about 900 °F)	Enclosure	NEMA 4X (IP66) minimum; 316 SS or copper-free aluminum (below 0.4 % Cu), epoxy coated



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Item	Value	Item	Value
Instrument power	24 VDC from the station UPS (GEN-DB-001, Section 9.8) unless noted		

TAG SCHEDULE

Table 1-3 lists every tag in  INS-LST-001 that references this datasheet, and Table 1-4 gives the process conditions at each tag.

Table 1-3: Tag Schedule

Tag	Service	P&ID	Range or set	System	JB	Area classification
MOV-111	Run 1 inlet isolation, DBB	 PRO-DWG-103	Open / closed	BPCS RTU/ PLC	JB-110	Class I, Division 2, Group D
MOV-112	Run 1 outlet isolation, DBB	 PRO-DWG-103	Open / closed	BPCS RTU/ PLC	JB-110	Class I, Division 2, Group D
MOV-121	Run 2 inlet isolation, DBB	 PRO-DWG-103	Open / closed	BPCS RTU/ PLC	JB-110	Class I, Division 2, Group D
MOV-122	Run 2 outlet isolation, DBB	 PRO-DWG-103	Open / closed	BPCS RTU/ PLC	JB-110	Class I, Division 2, Group D
MOV-115	Series-verification crossover (normally closed, locked out in remote)	 PRO-DWG-103	Open / closed	BPCS RTU/ PLC	JB-110	Class I, Division 2, Group D

Table 1-4: Process Conditions

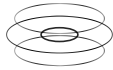
Tag	Normal P and T	Maximum operating P and T	Design P and T
MOV-111	1,050 psig / 70 °F	1,150 psig / 45 to 120 °F	1,440 psig / -20 to 150 °F
MOV-112	1,050 psig / 70 °F	1,150 psig / 45 to 120 °F	1,440 psig / -20 to 150 °F
MOV-121	1,050 psig / 70 °F	1,150 psig / 45 to 120 °F	1,440 psig / -20 to 150 °F
MOV-122	1,050 psig / 70 °F	1,150 psig / 45 to 120 °F	1,440 psig / -20 to 150 °F
MOV-115	1,050 psig / 70 °F	1,150 psig / 45 to 120 °F	1,440 psig / -20 to 150 °F

SPECIFICATION

Table 1-5: Specification

Item	Requirement
Valve	NPS 10 Class 600 double block and bleed trunnion ball valve, API 6D, with body cavity bleed (valve datasheet by others)
Actuator type	Intelligent non-intrusive electric actuator with quarter-turn gearbox, integral reversing starter and thermal protection; fails as-is
Power	480 V, 3 phase, 60 Hz from the motor control center (Volume 6); internal 24 VDC control circuit
Stroke time	About 60 s, adjustable 45 to 90 s (HOLD H-15); travel timeout alarm at 90 s ( INS-LST-003)
Torque sizing	Rated torque at least 1.25 times the valve's maximum breakaway torque at 1,440 psig differential; torque switch at 110 % of the valve requirement; motor duty S2, 15 min
Duty	On-off isolation, up to 60 starts per hour
Controls	Hardwired open and close commands (maintained, or pulsed 2 s) and stop from the local selector; open, closed, fault and remote-selected status to the RTU ( INS-LST-002)



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Item	Requirement		
Local controls	Local/Off/Remote selector padlockable in each position; open, close and stop controls. MOV-115 padlocked in REMOTE, key held by the measurement supervisor; it opens only through the series verification sequence		
Handwheel	Declutchable, rim pull 80 lbf maximum		
Indication	Local LCD position 0 to 100 % and status lights		
Configuration	Non-intrusive by infrared or Bluetooth with password; Bluetooth disabled after commissioning (INS-RPT-002, SCADA, Communications and Cybersecurity)		
Hazardous area rating	Explosion-proof, Class I, Division 1, Group D, T4; NEMA 4X and 6		
Environmental	Internal space heater; lubricant rated -40 °F		
Body bleed	NPS 1/2 bleed valve with PI-115A on MOV-115 for seal verification; manual bleeds on MOV-111, 112, 121 and 122 to the vent header		
SIL capability	Not required		
Tagging	316 SS plate		
Inspection and testing	Factory test with the valve: torque, stroke time, limit and torque switch settings, insulation resistance		
Documentation	Dimensional drawing, wiring diagram, hazardous location certificate, calibration certificate, IEC 61508 certificate and safety manual for safety instrumented tags, installation and maintenance manual and spare parts list, all as searchable PDF; torque sizing sheet		

OPEN ITEMS

Table 1-6: Open Items

HOLD	Item	Responsible party
H-15	Valve torques, stroke time and actuator frame size	Vendors
TBV	Motor feeders	Volume 6

